

Application No. 09/599,000  
Amendment Dated April 6, 2006  
Reply to Office Action of February 6, 2006

**REMARKS**

Claims 1-10, 12-14, and 17-33 are pending in this application. Claims 21-33 are allowed. Claims 1, 6, and 14 are amended. No new matter has been added.

Reconsideration and allowance of the standing claims are respectfully requested.

At page 2, paragraph 3 of the Office Action claims 1-2, 5-7, 10, 13, and 17 are rejected under 35 U.S.C. §103(a) as being unpatentable over United States Patent Number 6,321,276 to Forin et al. ("Forin") in view of United States Patent Number 5,907,676 to Fujishiro et al. ("Fujishiro"). Applicant respectfully traverses the rejection based on the amendments and remarks submitted herein.

The Office Action has failed to meet its burden of establishing a *prima facie* case of obviousness. According to MPEP § 2143, three basic criteria must be met to establish a *prima facie* case of obviousness. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). See MPEP 706.02(j).

As recited above, to form a *prima facie* case of obviousness under 35 U.S.C § 103(a) the cited references, when combined, must teach or suggest every element of the claim. See MPEP § 2143.03, for example. Applicant respectfully submits that the Office

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Action has not established a *prima facie* case of obviousness because the cited references, taken alone or in combination, fail to teach or suggest every element recited in claims 1-2, 5-7, 10, 13, and 17. Therefore claims 1-2, 5-7, 10, 13, and 17 define over the Forin in view of Fujishiro, whether taken alone or in combination. For example, claim 1 recites the following language, in relevant part:

a first work queue pair ... to establish a connection-oriented virtual interface (VI) channel between the first node and the remote node in the local network based on a local physical address of the remote node, wherein the remote node comprises a second work queue pair and wherein the connection-oriented VI channel is established by associating the first work queue pair with the second work queue pair....

Applicant respectfully submits that Forin fails to disclose this language. Rather, at col. 15, lines 37-53 and col. 17, lines 32-52, the citations given in the Office Action, Foring merely discloses, in relevant part:

Each virtual interface 106 may comprise a send queue 107 and a receive queue 108. In order to request an I/O operation, the VI user agent I/O posts descriptors to the send and receive queues. A descriptor is a data structure specifying information to assist the recoverable I/O request processor 60a of the VIA network interface adapter 100 to process an I/O request... (col. 15, lines 37-43).

...the recoverable I/O request processor receives a pointer to the descriptor corresponding to the send ( ) operation. The pointer may have been previously posted in the send queue by the VI user agent In step ST2, the recoverable I/O request processor attempts to translate the virtual memory address of the descriptor using page tables local to the VIA network interface adapter. The recoverable I/O request processor 60a then determines whether the translation was successful. (step ST3) If the translation was successful, the recoverable I/O request processor processes the send ( ) request. (col. 17, lines 32-42).

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Forin, however, fails to disclose, teach or suggest first and second work queue pairs at the first and remote nodes, respectively, "wherein the connection-oriented VI channel is established by associating the first work queue pair with the second work queue pair," as recited in claim 1. Furthermore, as correctly noted in the Office Action, Forin does not disclose, teach or suggest a VI channel connection established between a first node and the remote node in the local network based on a local physical address of the remote node, as recited in claim 1.

According to the Office Action, the missing language is disclosed by Fujishiro at col.5, lines 66-67 and col. 6, lines 1-30. Applicant respectfully disagrees. First, Fujishiro fails to disclose, teach or suggest first and second work queue pairs at the first and remote nodes, respectively, "wherein the connection-oriented VI channel is established by associating the first work queue pair with the second work queue pair," as recited in claim 1. Second, Fujishiro fails to disclose, teach or suggest a VI channel connection established between a first node and the remote node in the local network based on a local physical address of the remote node, as recited in claim 1. Rather, at the given cite, Fujishiro states, in relevant part:

procedure for establishing a connection ... between the client which sends a connection request and the server which receives the connection request .... The MS Manager portion 205 in the client specifies an identification number (IP address) of the server to which the client is to connect and establishes a connection via the special port. When the connection is established, the server ... server issues the socket() command to the socket interface 206 to cause it to create a socket and assign a handle. Then, the server issues the send() command to send to the client the physical address of the port corresponding to the created

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socket. The client issues the recv() command to obtain the physical address....(Col. 5, lines 66-67, col. lines 1-27).

Fujishiro, however, fails to disclose, teach or suggest "to establish a connection-oriented virtual interface (VI) channel between the first node and the remote node in the local network based on a local physical address of the remote node, wherein the remote node comprises a second work queue pair and wherein the connection-oriented VI channel is established by associating the first work queue pair with the second work queue pair," as recited in claim 1. Therefore, Fujishiro fails to overcome the limitations of Forin. Consequently, Forin and Fujishiro, whether taken alone or in combination, fail to disclose, teach or suggest every element recited in claim 1.

Accordingly, Applicant respectfully submits that claim 1, as amended, is non-obvious and patentable over Forin in view of Fujishiro, whether taken alone or in combination. Claims 6 and 14 are amended to recite features similar to those in claim 1, and for analogous reasons to those discussed above with respect to claim 1, Applicant submits that claims 6 and 14, as amended, also are non-obvious and patentable over Forin in view of Fujishiro, whether taken alone or in combination. Accordingly, Applicant respectfully request withdrawal of the obviousness rejection with respect to claims 1, 6, and 14.

Furthermore, if an independent claim is non-obvious under 35 U.S.C. § 103, then any claim depending therefrom is non-obvious. See MPEP § 2143.03, for example. Accordingly, Applicant respectfully request withdrawal of the obviousness rejection with respect to claims 2, 5, 7, 10, 13, and 17 based on their dependent status.

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At page 7, paragraph 4 of the Office Action claims 3, 4, 8, 9, 18, and 19 are rejected under 35 U.S.C. §103(a) as being unpatentable over Forin. Applicant respectfully traverses the rejection based on the amendments and remarks submitted herein. For example, claims 3 and 4 depend from claim 1; claims 8 and 9 depend from claim 6; and claims 18 and 19 depend from claim 14. Therefore, for reasons analogous to those discussed above with respect to claims 1, 6, and 14, Applicant respectfully submits that dependent claims 3, 4, 8, 9, 18, and 19 are non-obvious and patentable in view of Forin. Accordingly, Applicant respectfully request withdrawal of the obviousness rejection with respect to claims 3, 4, 8, 9, 18, and 19.

At page 10, paragraph 5 of the Office Action claim 12 is rejected under 35 U.S.C. §103(a) as being unpatentable over Forin in view of United States Patent Publication Number 2005/0058147 to Regnier et al. ("Regnier"). Applicant respectfully traverses the rejection based on the amendments and remarks submitted herein. For example, claim 12 depends from claim 6. Therefore, for reasons analogous to those discussed above with respect to claim 6, Applicant respectfully submits that dependent claim 12 is non-obvious and patentable over Forin in view of Regnier, whether taken alone or in combination, because Regnier fails to overcome the limitations of Forin with respect to claim 6. Accordingly, Applicant respectfully request withdrawal of the obviousness rejection with respect to claim 12.

At page 11, paragraph 6 of the Office Action, claims 14 and 20 are rejected under 35 U.S.C. §103(a) as being unpatentable over Forin in view of Fujishiro and further in view of Regnier. Applicant respectfully traverses the rejection.

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Claim 14 is amended in a manner similar to claim 1. For reasons analogous to those discussed above with respect to claim 1, Applicant respectfully submits that claim 14 is non-obvious and patentable over Forin in view of Fujishiro. Regnier fails to overcome the limitation of Forin and Fujishiro, whether taken alone or in combination. For example, Regnier also fails to disclose, teach or suggest the following language recited in claim 14:

establishing a connection-oriented virtual interface (VI) channel between a first node and each of multiple other nodes in a network based on local physical addresses of the other nodes using a first work queue pair at the first node and multiple work queue pairs at each of the multiple other nodes, wherein the first work queue pair comprises descriptors to describe data to be transmitted and to describe where to store received data, and wherein the connection-oriented VI channel is established by associating the first work queue pair with each of the multiple other work queue pairs...

Therefore, Applicant respectfully submits that claim 14 and claim 20, which depends therefrom, are non-obvious and patentable over Forin in view of Fujishiro and further in view of Regnier. Accordingly, Applicant respectfully request withdrawal of the obviousness rejection with respect to claims 14 and 20.

At page 13, paragraph 8 of the Office Action claims 21-33 are allowed.


For at least the above reasons, Applicant submits that claims 1-10, 12-14 and 17-33 recite novel features not shown by the cited references. Further, Applicant submits that the above-recited novel features provide new and unexpected results not recognized by the cited references. Accordingly, Applicant submits that the claims are not anticipated nor rendered obvious in view of the cited references.

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It is believed that claims 1-10, 12-14, and 17-33 are in allowable form.  
Accordingly, a timely Notice of Allowance to this effect is earnestly solicited.

The Examiner is invited to contact the undersigned at 724-933-9324 to discuss  
any matter concerning this application.

Respectfully submitted,  
KACVINSKY LLC

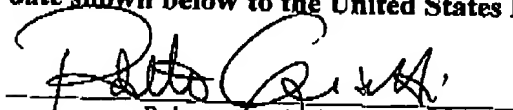
  
Roberto Capriotti, Reg. No. 46,599  
Under 37 CFR 1.34(a)

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4500 Brooktree Road  
Suite 102  
Wexford, PA 15090

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4/6/06  
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